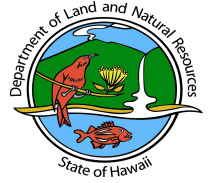


State of Hawai'i
Department of Land & Natural Resources
DIVISION OF AQUATIC RESOURCES
Keawakapu – Maui Artificial Reef Public Hearing
Kamali'i Elem. School, Kihei, Maui
March 30, 2010



42 attendees
17 oral testimonies
5 written testimonies

Introduction of DLNR staff:

DLNR Chairperson, Laura Thielen
Maui DAR: Russell Sparks, Info. & Ed. Specialist
 Skippy Hau, Aquatic Biologist
Oahu DAR: Francis Oishi, Program Manager
 Paul Murakawa, Aquatic Biologist
Hilo DAR: Robert Nishimoto, Program Manager

Other Attendees:

Matthew Parry, NOAA
Robert O'Connor, NOAA
Jeff Phillips, FWS
Nadiera Sukhraj, FWS

Introduction of meeting attendees (Kainoa Gonsalves)

Meeting began at 6:39 PM

Blessing by Les Kuloloi'o

Meeting called to order by Chairperson Laura Thielen

- Offered an apology for the damage to corals as a result of our artificial reef deployment;
- Here to discuss emergency restoration options – 3 alternatives that will be presented;
- Will ask the public about possible restoration projects.

Dr. Matthew Parry, NOAA gave a power point presentation on NOAA's and the USFWS's preliminary injury assessment at Keawakapu.

PUBLIC TESTIMONY:

DARYL TANAKA: Fix the situation, take the z modules that are laying on the sediment and create a new home & habitat for the fish. Leave the z modules that are just lying on the reef;

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removing those may cause more damage.

LES KULOLIO. *rep. from Aha Kiole – Kaho'olawe:* Who was in charge? Where did the communication fall apart. Was there no experienced coordinator on site? Why was the drop zone missed? Why? Was there buffer zone? What kind of monitoring/oversight was done during the operation. The coral was damaged and DAR missed the mark? Requesting to see an official report from DAR and suggests that Aha Kiole work with and be apart of monitoring and reporting process. Where was the cultural awareness, was there any one that was consulted? Call this effort a failure, enough of science. what was the wind conditions? Where was the target? What was the wind conditions? What kind of technology was used? What is your emergency restoration now after looking at the NOAA photos is disappointing to see something like this happen. We Hawaiians are fisherman of the sea when we fish we were able to hit our mark swimming in 80-90 feet of water. In closing the Carthaginian is someone else's junk enough putting junk in the sea. Suggests that no more artificial reefs be deployed until you can do the job correctly.

Laura Thielen's response: *Chairperson Thielen indicated that Artificial reef project has been cancelled and any further future projects will require a full EIS.*

Paul Murakawa': *Weight of each concrete modules are 2200 lbs. Due to safety issues barge operator made the decision of not using the cable to hold barge in place so using the tug boat to keep the boat in place. Grid area was marked by surface buoys.*

Laura Thielen: "How did it happen?" (Asks staff that was involved to address some of the public questions.)

Russell Sparks: *Pre-assessments that were done were based on the location of the current site with the existing artificial reef material. We planned the original drop site a fair distance to the northwest of the existing site, and based on the discovery of a small patch reef during the pre-assessemnt, the drop site was moved an appropriate distance further to the northwest (about 50 meters). The weather was bad on the pre-assessment day so the assessment could not be conducted from the surface. Visibility required all underwater inspection had to be conducted on SCUBA. The pre-assessment area was not marked, but we felt an appropriate amount of area was assessed and the drop site, the small patch reef and the Saint Anthony Artificial Reef were all identified with surface buoys.*

Skippy Hau: Non-state divers have previously moved (using lift bags) tire modules . Thus some modules locations have been changed.

Question from J. Strahn on how come the modules were not dropped in the permitted area?

Francis Oishi:- *Artificial reef project was started in 1961 first deployment was Manaloa bay; the 2nd was at Keawakapu in 1962. No GPS technology available at the time. Biologists used combination of land marks references and on navigational charts, estimated where the deployment was being dropped. At that time, the Division deployed derelict car bodies . An inspection of area was done before the deployment. Going forward documentation of the area was done by estimating the corners of the area by biologists. We now know that the coordinates of that area were not correct and the*

estimates made back 1960's were also incorrect. By today's standards not accurate.

TAKEO MIYAGUCHI *Maui Nui Council: (also submitted written testimony)* Leave the modules in place, trying to remove them will cause more damage, request for Chairperson please pass the size & bag limits ruling and bring to hearing process. This would offset fishing pressure and provide for hastened recovery.

Matthew Parry: - *Addressing public with question that could not be heard.*

Question of positioning of modules laying flat in the sand in accordance to shown by NOAA post assessment photo's approx. 1200 of them, some are laying flat but there are a lot of the modules that are stacked quite high. More photos are available and are willing to share that with the public. Technology of vessels are state of the art vessels that run aground and damage coral. Our job is to ask how did this happened and there are times when the answers are not satisfactory. That 's the bad part when boats run aground the good part of the job is when we get to go ahead and fix it and have a positive impact.

*** inaudible dialogue between public and L. Thielen**

Paul Murakawa: *Responding to public in asking about the selection of the area pre-deployment assessment: Car bodies were found, vessel was supposed to be north of the area and markers were used: One (1) buoy was the marker of the drop zone, One (1) buoy marked the patch reef found during the pre-assessment another was the existing site of the St. Anthony. Car bodies were found and staff assumed that drop point was correct.*

Skippy Hau: *When concrete modules were to be redeployed project was supposed to be done to compliment existing areas. The St. Anthony vessel was done in cooperation with a private sector group, and is located outside the State Artificial reef area. Additional modules were intended to be added to compliment each other.*

ANITA WITNER: Leave modules back if there will be more damage to coral, let nature take its course, immediately make Keawakapu marine protected area for recovery, bring bag limits to public hearing, no take rule of scuba with surface supplied air. No more aquarium collection licenses issued, injection wells be banned, build a pump out station at Ma'alaea.

ROBIN NEWBOLD *Maui Nui Marine (also submitted written testimony):* Close Keawakapu area if would remove stress on reef, protect off shore habitat till situation of damage can be decided. Pass size & bag limit rule in order to help restore and replenish herbivore/parrot fish habitat. Leave the decision of removal of slabs to the professionals, suggest the removal of modules on coral that could move, be removed; full removal could be more damaging to the reefs. Ideally if the concrete is not on the reef like Matt Parry said, remove those without damaging the reef further. Consider the return of Dan Polhemus DAR administrator and his knowledge on reefs. Working together with the community.

Matthew Parry: *When removing modules keep in to consideration physical damage & injury associated with the removal of these modules although not a marine engineer. There will be impact to coral the shallowest depth is 40ft so water motion is not really of a concern. Most of the modules are in more deeper waters 70-80 feet.*

IRENE BOWIE, Maui Tomorrow: Why was no public scoping meetings done? The public

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at large will need more information and more meeting to determine the outcome and best way to save the reef. Will there be more information from the division to come? Why was the EIS not done? [Response: Have EIS for Kalaeloa; consultation with U.S. FWS (on the EIS) was done.] What was time frame of permit? If fines are imposed how will these fines to be used and who will decide. After the fact EIS should be made. Why would water motion be overlooked? As indicated in NOAA assessment there are smaller parts of modules the have broken off. Back in 1980's there was a major storm, and boats washed up onto the shoreline. To try and ask the public to assist in an determination of this disaster would be too early; more information would have to be provided and more meetings should be conducted.

Francis Oishi: *Environmental assessment was done for the first 4 artificial reef Manaloa, Waianae, Kualoa on Oahu and Keawakapu which was not updated for the continuing project. Kalaeloa is a pending official proposed artificial reef.*

Paul Murakawa: *Project was scheduled for mid June, but due to high south swell, decision was made with barge company to push project back to October. At that time, the barge was used to assist in America Samoa (hurricane) relief efforts so project got pushed back to November. Upon the return of the barge from America Samoa, eventually pushed to December. Kalaeloa is a proposed artificial reef program, that is why an EIS is being done.*

Laura Thielen: *Total damage assessment process is premature and more information needs to be provided. Emergency restoration steps to decide to remove, remain in place, partial removal? Blocks on top coral and if removal is done more damage could be counted on top of existing damage. Other options to think of: Who would decide projects and who monitors for DAR? I feel that it should not rest within the division; a "Trust council" would determine projects for DAR/ DLNR. Burden would be on division to find funds as well as provide staff on these projects. "Trust council" body would decide what project gets done, dollar value and resource loss of project, possibly community based. More meetings to be held in order to gather more information on an emergency restoration and will be provided to the public.*

MIKE MORAN: Felt that the Division of Aquatic Resources was quick to inform the public and report coral damage and information requested was provided to the public as fast as possible, intentions were good trying to add to the habitat. Leave the blocks in place, this is the great big project the least expensive way is best. Work on improving Kihei and South Maui area, put rules in place to do just that. Ask for no sewer dumping in sanctuary waters, work with the county on ridding injection wells that are pumped in our waters.

ROY BENDELL, former NOAA fish biologist: Remove all 125 modules off the reef, it should have been immediately removed. Favors artificial reef program. Recently visited area and species of fish have returned. If the blocks are not left in place how will you know the habitat will return naturally. Tax payers should not have to foot the bill. Let the reef flourish, fix the mistake remove the blocks, in 10 years coral will restore and look that natural reef, in 30 years if modules left on reef will not look natural. Why the barge companies insurance did not cover damage?

ERIC STEIN, commercial dive operator: What kind of concrete was used? What was pH balance of that kind of concrete? Concrete used is not a great substrate for coral to grow back. Partial removal recommended to restore the ecosystem.

Inaudible dialogue by attendee.

Eric Stein: Is active in day-use mooring program, took 4 yrs to put permit process in place and why taking so long ...18 years?

Paul Murakawa: *Concrete was donated. (Email from Ameron. Indicated the pH of concrete was 13.1.)*

Nadiera Sukhraj: *In explanation of ecological restoration , succession of organisms, plants return in natural order. Post assessment was done one month after project. Organisms were present in pores of concrete, indications of turf algae, followed by larger marine algae species. Coral species that have released polyps that will start the growth of coral is the beginning stages on top of these modules. Growth will eventually happen but enough time has not passed to determine coral settlement.*

Inaudible question by attendee

Nadiera Sukhraj: *We need to assess how many coral colonies and what kind of colonies are down there.*

HANNAH BERNARD, Hawaii Wildlife Fund: Post assessment is like a rapid one. You cannot think that 3 days on the reef will provide you the information you need to fully assess situation. Partial removal is recommended, time is of the essence, figure out areas of removal first. Monies are not available. Provided list of action items for DLNR: **1.** Return the diversions in places of East Maui and Na Wai Eha area, **2.** Stop injection wells, **3.** Community based management needs much more support. **4.** State-wide regulations are needed to pass through to hearing regulated species size & bag limits.

ELLE COCHRAN: (also submitted written testimony) Based on presentation, whether this was done accidentally ,negligence, poor judgment, how can DAR prevent this from ever happening again? Experts in the field DAR & DOCARE are here to make the right decision to protect the resources. Consult the *Aha Kiole* and *kupuna* , cultural knowledge the connection from land to sea; there is a disconnect with that in our world. Our environment is our economy here. Damage to the reef is no excuse; need more information. Partial removal 125 modules is bad enough. Make sure that this never happens anywhere in the world.

RENEE UMBERGER: Why no EIS? Why did you rely on an out-dated EA for this project? Did your permit allow for a drop zone outside of the reef? Perform an EIS? Removal of modules in shallow water, request a EA or EIS. There is a 240 page EIS prepared for Oahu project. Why would DAR/DLNR not consider the addition of reef to be non-conforming use? Was the ACOE permit allow for the drop to be done outside the artificial reef zone? Skippy Hau indicated that the plan all along was to match up the other artificial reef. Concern of modules are in shallow water; full EIS should be done.

LOREN KING: Will tax-payer monies pay for removal? Does the barge company have insurance? The Barge company should pay for this. Rid all injection wells.

TERRY LEONARD: Community is very close and this is unacceptable behavior. How could this have happened?

STEVE SCOTT, diver: Watched it all happen (landscape company owner), monitoring not done. Something needs to be done over the live coral area.

GREG HOWETH, OTC, Lahaina Divers: Do not close Keawakapu area use to the community to come and monitor area. Did the DLNR intentionally drop these modules out side the approved area? Not enough information to come to a determination and give the public options. Is the full removal is the best option rather than doing nothing?

DOUG CORBIN, dive instructor: How much the project cost? How much to study? Where is the captain of Barge? What kind of experience did the company have doing artificial reefs? Modules should have been pulled off right away. Who designed the z-blocks? These z blocks will not be able to sustain a coral reef habitat. What architecture was used? Artificial reefs do work. Pick another area. Why was the permit extended? Want to see Pictures of the good that came out of the use of z blocks? Tax-payer's monies are being used for projects based on incompetence. Who is going to pick up the tab? Will there be civil charges? Penalties? Crown of thorns are in the area.

LAURA THIELEN: State Department of Transportation is conducting an external investigation, currently. Their report, when finalized, will be made public. The next artificial reef project will need an EIS; start from scratch.

Un-Ided public: "Less meetings; more restoration."

Meeting adjourned: 8:45 PM.

WRITTEN TESTIMONIES:

AUDREY ALLENCASTRE
HANNAH BERNARD
ELLE COCHRAN
ROBIN NEWBOLD
TAKEO YAMAGUCHI

SUGGESTIONS

Partial Removal of Z-modules

2. Removal of modules that are lying on sediment/sandy area, stacking those to create a new artificial reef area.
3. Get modules off of coral reef .
4. Work with commercial users of area to assess habitat in area.

Full Removal of Z-modules

1. Leave it up to the NOAA people to figure up.
2. Removal should have been immediate after incident.
3. EIS should be done once damaged coral is assessed.

No Removal of Z- modules

1. Leave them in place on the coral to prevent further damage to more healthy coral.
2. No monies available and cost too high as well as risk to staff to remove module.
3. Close area and create Fish Management area due to high use area of dive operations.
4. Close area till assessment can be done and EIS can be started.

Other Suggestions and Questions:

1. Closure of Keawakapu surrounding reef area
2. Control usage of area as an FMA
3. Impose as "no take" of resources zone
4. Pass through to hearing of Regulated species Bag & Size limits rules.
5. Why EIS was not done?
6. Why outline of artificial reef program EA was outdated
7. Why was an outdated protocol process on Artificial Reef used by Division of Aquatic Resources.
8. Suggestion of "post" EIS be done to measure scope of destruction and general plan of restoration be given.
9. Support in stream flow and restore East and Na Wai Eha streams. We know that streams assist in restoring balance for fish habitat.
10. Seek out Federal funds to phase out injection wells and the recycling of wastewater.
11. Support community based projects, work with individual communities to assist with management protocols.